The Road (and Potholes) to Successful Data Archiving
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Global Leader in Agricultural Products and Services

- 2016 Market capitalization US $14B
- Strategic growth through M & A
- 15,000+ employees
- 1,500 retail facilities globally
- 15 wholly owned production facilities located worldwide
- 100+ distribution warehouses (pre-merger)

Challenges in IT…

- 2014 – Centralized IT from independent business units
  → Data Archive Service created
- 2015 – Implement Dev/Ops
- 2016 – Managed Services/Outsourcing
- 2017 – Merger of Equals doubles size

Archive Challenges…

- Traditional Records Management focused on paper documents
- Acquisition-fueled application landscape growth without data disposition policies
- Data hoarding mentality; afraid to purge anything!
The First Pothole – Senior Sponsorship
Stating the Case for Archiving

Understanding the Costs AND Risks associated with retired applications

- Are you incurring licensing, support, maintenance, backup, and storage costs?
  → Do you support outdated or non-standard Servers, Operating Systems, Databases?
  → Quantify it!

- Is Application knowledge dwindling, non-existent, or even documented?
  → Do you still have Administrative capabilities?

- Is the data secure?

- Are you compliant with your Records Management policies?

- Do you know when the application data should be purged?

- Do you have a legally defensible process?

- Can you retrieve data from the application in support of business, audit, or legal (think e-discovery!) needs?
  - Would you need consulting services to retrieve data?
  - Time-consuming, if possible at all
  - Do you still have the ability to run reports with appropriate key inputs; They may differ from current use:
    - GL Codes
    - Product, Customer, Invoice Numbers

Planting the seed…
Understanding Costs of Structured Data Archiving

- On-Premise versus SaaS implementation
  - What is the cost for implementation?
  - License and on-going support costs
  - Account for:
    - Capacity Planning
    - Disaster Recovery
    - Addressing Security

- How much does it cost to archive an application?
  - Understand the variables that effect archiving costs
  - Develop a Project Cost Modeling Tool (more on that later)

- Archive ROI
  - Is the cost to keep a retired application more than the cost to archive?
  - Have you considered that the application data must be kept for the entire length of the required retention? How many years? 4, 10, 30+...
The Second Pothole – Governance
Establishing/Reinforcing a Compliance Culture

Understanding Archiving’s Best Friends!

- Understand why data hoarding is undesirable
- Understand why a single repository/interface to retired application data could reduce costs
  → E-discovery (again)!
  → Business research; Adjudication
- Understand that a Records Retention Policy provides **clear guidance** on **what** to keep and for **how long**

**Know your retention policy!**
It gives you a place to start an archiving conversation.
Third Pothole: Knowing When to Archive
The Archive Appraisal

Archiving Decision Tree
A graphical representation of the **considerations** to determine if archiving is **required**...

- The Appraisal is a simple form where each question is presented as a *Consideration*.
- Each *Consideration* is fully explained in a linked *Guidance* section.
- Initially done as a **cooperative exercise with the application and business owners** → Enables owners to research and answer the questions themselves rather than being dictated or imposed by IT.
- As familiarity is gained with the appraisal, the time to complete the form is minimal.
- Eliminates inconsistencies with how structured data is handled for retired applications.
More Potholes
“Yes, Archiving is needed but…”

Backups:
- Copy data for protection
- Support short-term operations and recovery
- Support availability
- Not easily searched

Owner Approvals for:
- Decommissioning
- Archival and Reporting
- Applied Retention
- Access to archived data
- Purge after retention met

Accessibility:
- Need may be Perceived or Real
- Often fear driven because alternatives are not known or understood

Archives:
- Supports long-term business value & compliance
- Secure data, immutable (cannot be changed)
- Move data off primary disk and compress
- Well-suited for regulatory compliance, legal holds
- Readily searched

Define Who Makes the Decisions:
- Functional business unit; Director level role or designate
- Compliance can help
- Legal may be the correct option when no business organization will take responsibility

Nobody owns this application

You can’t take my application away!
The Archive Discussion: Clearing up Misconceptions

Common Questions during the Business Engagement

- **What do you mean, “The application is being decommissioned?”**
  - Have well-defined terminology that is consistently used:
    - Retired
    - Archived
    - Decommissioned

- **What data are you going to keep?**
  - All of it! The person is usually asking for **reassurance**.
  - Your answer must be tailored to the technical level of the person asking.
    - Don’t talk about tables, rows, and columns to a person who doesn’t understand databases!

- **Will the data be in the archive indefinitely?**
  - **No!** This is another opportunity to discuss the Retention Schedule and Compliance.
  - Review the process for approving data purges from the archive. (You have one, right?)

- **What if I need to run a report or “pull up a screen”?**
  - NOW, you can get to the business requirements for archive-based reporting
## Key Enabler for Application Decommission Approval: Self-Service Reporting

### When you absolutely have to have it...

- Identify the business critical 1 or 2 reports/screens currently (or most recently) used to look up data.
- Is there a solid justification for needing to access that data in the future?
  - Is this the data typically needed for audit, regulatory, or legal requests?
  - Is the data still needed operationally? (E.g. Credit or Employment history)

### Reporting from the Archive

- Denormalized views based on business-identified needs
  - Created in the source DB, if possible
  - Owned by the archive reporting user
- Archived as tables
  - In own schema for security
  - External Read access restricted to reporting tables
- Data Vault is ODBC-compliant (Nucleus driver)
- Leverage existing reporting tools/portals for business user self-service reporting
- Significantly improves credibility, creating trust, building cooperation
Every report works in the same way:

- Simple search capability:

  Prompt
  - Provide values for the report you are about to run.
  - Indicates a required field.
  - Points to missing information.

- Business enabled to do their work:
Business Confidence in Archiving: Trusted Advisor, Repeatable Process

Standards and Conventions

- Templates
  - Build familiarity with archive process
  - Consistent set of questions to answer
  - Archive Appraisal
  - Archive Business Requirements
  - Archive Technical Intake
  - Archive Capacity Planning
  - Archive Technical Design

- Naming Standards to Tie Everything Together
  - Archive Id
    - Company or Acquisition designator
    - Incremental value
  - Application Name

Archive Process

- Test Archive
  - Validate Archive
    - ILM built-in
    - Custom-built
  - Validate Retention
- Build user accessible reporting
  - Validate Performance (not production!)
- User Acceptance of Self-service reporting
- Pre-Production Archive
  - Validate
- Migrate to Production Archive
  - Validate
- Release to Business
Questions?

Are you out standing in your field?

Thank You!